


IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: Daniel M. Jensen  
SERIAL NO.: 09/661,731  
FILED: September 14, 2000  
FOR: APPARATUS FOR FORMING  
LIGHTWEIGHT CONCRETE  
BLOCK  
ART UNIT:  
EXAMINER:  
DOCKET NO.: 0818.ACB.PT

CERTIFICATE OF DEPOSIT  
UNDER 37 C.F.R. § 1.8

I hereby certify that this  
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Frank W. Compagni  
12/13/00  
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INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. § 1.97

Assistant Commissioner of Patents  
Washington, D.C. 20231

Sir:

Please find, pursuant to 37 C.F.R. § 1.98(a)(1), the enclosed Form PTO-1449 which contains a list of all patents, publications, or other items that have come to the attention of one or more of the individuals designated in 37 C.F.R. § 1.56(c). Applicant respectfully submits that this Information Disclosure Statement is filed pursuant to 37 C.F.R. § 1.97 (b)(1), within three months of the filing date of the application and requests that the references cited in the enclosed form PTO-1449 be made of record in the above-captioned application. While no representation is made that any of these references may be "prior art" within the meaning of that term under 35 U.S.C.

§§ 102 or 103, the enclosed list of references is disclosed so as to fully comply with the duty of disclosure set forth in 37 C.F.R. § 1.56.

Moreover, while no representation is made that a specific search of office files or patent office records has been conducted or that no better art exists, the undersigned attorney of record believes that the references listed, together with any other references which may have been previously submitted or listed, are the closest to the claimed invention (taken in its entirety) of which the undersigned is presently aware, and no art which is closer to the claimed invention (taken in its entirety) has been knowingly withheld.

In accordance with 37 C.F.R. §§ 1.97 and 1.98, a copy of each listed reference (or relevant portion thereof) which was not previously submitted to, or cited by, the Patent Office is also enclosed.

All listed references are either in the English language accompanied by a translation into English or provided with the following concise explanation of relevance under 37 C.F.R. § 1.98(a)(3).

Japanese Patent No. JP01009880 discloses a product that can be obtained by curing, while heating, a mixture comprising cement and water as the chief materials and foam and/or aggregate in a chamber where the ambient air pressure is so controlled as to be equal to the inner pressure of said foam and/or the open cell in said aggregate. According to this process, the mixture will be cured without causing any expandable deformation. Therefore, the foam containing slurried mixture poured into a mold can be transferred immediately into the curing chamber without

waiting for the setting at normal temperature, thus obtaining the objective high-strength concrete product with uniform porous texture.

Japanese Patent No. JP04198056 discloses the use of potassium carbonate as a setting regulator that is initially admixed with a concrete slurry containing perlite as a lightweight aggregate. The concrete slurry 11 is then heated to 25-35°C followed by discharging the concrete slurry 11 at this temperature into a frame mold 12. The slurry 11 has a sufficient fluidity because of the setting regulator contained therein and of the slurry temperature kept to 25-35°C and the lightweight aggregate 13 uniformly dispersed therefore. Setting of the slurry 11 is then carried out, thus obtaining the objective lightweight concrete panel containing the lightweight aggregate 13 uniformly dispersed in the concrete.

Japanese Patent No. JP06321650 discloses the use of a prescribed amount of reproduced FRP fine powder having 5-1000  $\mu$ m particle size, especially 5-100  $\mu$ m and inorganic fiber such as fly ash fiber having 5-10  $\mu$ m diameter mixed into a cement mixture incorporating cement such as Portland cement and lightweight aggregate such as pumice or perlite to prepare the lightweight concrete material. Next, a proper amount of water is added to the lightweight concrete material and agitated, the material is poured into a mold frame and deaerated by applying vibration, and then sucked and deaerated by a vacuum pump. Thereafter, the material is aged by heating in an autoclave, etc., and hardened, then heat-treated at 200-250°C to obtain the high strength lightweight concrete having 1.0-1.1 specific density, 60-80kgf/cm<sup>2</sup> flexural strength and 350-400kgf/cm<sup>2</sup> compression strength.

Japanese Patent No. JP07048183 discloses the use of a bubble generator 1 filled with ceramic or plastic cylindrical packing pieces 2 nearly equal in diameter and height (0.3-2.5cm) with the inner diameter at least  $\frac{1}{2}$  times the outer diameter in a cylindrical vessel 3 made of rigid plastics, stainless steel or metallic aluminum. Both ends of the cylinder 3 are packed with steel wool 4. Compressed air and an aqueous solution containing a foaming agent, such as an alkyl ether sulfate at a concentration of 0.1-5wt. % or so are then injected at a pressure of 2-6kgf/cm<sup>2</sup> through nozzles 5,6 on one side of the cylinder 3 to produce bubbles, which are then delivered through a 1mm mesh 7 attached to the outside of the steel wool 4 on the other side. The bubbles are then mixed with a slurry containing both siliceous material and calcereous material as the main feedstocks followed by curing at high temperatures and pressures.

Japanese Patent No. JP09110553 discloses an ultra-lightweight cellular concrete having a specific gravity of 0.09-0.19 produced by mixing a cement mortar derived from 15-50 pts.wt. weight of a hydraulic cement material consisting of lime and various kinds of cement such as Portland cement, mixed cement or alumina cement, 50-85 pts.wt. of aggregate such as silica rock, crushed rock or lightweight aggregate and 60-80 pts.wt. of kneading water with a foamed material produced by foaming an aqueous solution of a foaming agent produced e.g. by mixing synthetic surfactant, a decomposed protein, a foaming agent and a water-soluble thickener to a foaming ratio of 10-40, kneading the mixture to a viscosity of 130-200pa.S, forming the kneaded product and curing in an autoclave.

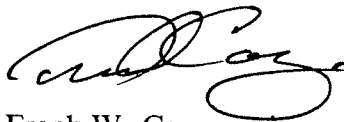
German Patent No. EP0644024B1 discloses a process for making cellular-concrete elements on a lime base comprising, *inter alia* the steps: producing a milk-of-lime from sand,

lime, cement, other additives and water, adding of aluminum powder as gas-forming agent, pouring the mixture thus obtained into a molding box (1), allowing the mass situated in the molding box to rise and partially set, which mass is then supplied to further processing steps. In order to achieve the desired properties of the end product with greater reliability, vibrating oscillations are applied, after the mixture has been poured into the moldings box, to the box as a whole from underneath on one side in the region of its bottom.

Please charge any additional fees or credit any overpayment to Deposit Account No. 50-0881.

DATED this 13<sup>th</sup> day of December, 2000.

Respectfully submitted,



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